Written assignments to hand in.

Sec P4 68, 80
Due Friday 9/8

Sec P5 70, 78
Due Monday 9/11

Discussion Problems From the department syllabus
These are not to hand in.

Section P4, P5

WebAssign
Sections P3 + P4
Due Thursday 9/7 by 9pm.

Section P4

(63) Simplify

a. $(8a^6b^{\frac{3}{2}})^{2/3} = (8^{\frac{2}{3}})(a^6)^{2/3}(b^{\frac{3}{2}})^{\frac{2}{3}} = (8^{\frac{1}{3}})^2 a^4 b = 2^2 a^4 b = 4a^4b$

Remember $\sqrt[n]{a} = a^{\frac{1}{n}}$

b. $(4a^6b^8)^{\frac{3}{2}} = 4^{\frac{3}{2}}(a^6)^{\frac{3}{2}}(b^8)^{\frac{3}{2}} = (4^{\frac{1}{2}})^3 a^9 b^{12} = 8a^9b^{12}$

$36 \cdot \frac{3}{x} = 9$

65. b $(u^4v^6)^{-\frac{1}{3}} = (u^4)^{-\frac{1}{3}}(v^6)^{-\frac{1}{3}} = u^{-\frac{4}{3}}v^{-2} = \frac{1}{u^{\frac{4}{3}}v^2}$

67. ⓐ $\left(\frac{x^{-\frac{2}{3}}}{y^{\frac{1}{2}}}\right)\left(\frac{x^{-2}}{y^{-3}}\right)^{\frac{1}{6}} = \frac{x^{-\frac{2}{3}}}{y^{\frac{1}{2}}}\frac{(x^{-2})^{\frac{1}{6}}}{(y^{-3})^{\frac{1}{6}}} = \frac{x^{-\frac{2}{3}}x^{-\frac{1}{3}}}{y^{\frac{1}{2}}y^{-\frac{1}{2}}} = \frac{x^{-\frac{3}{3}}}{y^0} = \frac{1}{x}$

ⓑ $\left(\frac{x^{\frac{1}{2}}y^2}{2y^{\frac{1}{4}}}\right)^4\left(\frac{4x^{-2}y^{-4}}{y^2}\right)^{\frac{1}{2}} = \left(\frac{x^{\frac{1}{2}}y^{\frac{7}{4}}}{2}\right)^4\left(\frac{4}{x^2y^6}\right)^{\frac{1}{2}}$

$= \frac{x^2y^7}{16}\frac{2}{xy^3} = \frac{2x^2y^7}{16xy^3} = \frac{xy^4}{8}$